

S.N. 10/789,144  
Response Dated June 19, 2007  
Reply to Office Action of April 25, 2007

Patent") to reject claims 1, 3, 5, 9-13, 15, 38-40, and 42-46 as being obvious. However, the law is quite clear that it is *improper* to combine references where the references "teach away" from their combination. *In re Grasselli*, 713 F.2d 731, 218 USPQ 769 (Fed. Cir. 1983).

As discussed in previous responses, U.S. Patent No. 6,597,950 to Haile et al. (the "'950 Patent") discloses bicomponent fibers made from *mixed polymers*. For instance, col. 13, lines 39-49 state:

In a bicomponent fiber of the invention, the polyesters of this invention will be present in amounts of about 10 to about 75 weight % of the bicomponent fiber. The other component may be selected from a wide range of other polymeric materials including, but not limited to, polyesters such as polyethylene terephthalate (PET), polytrimethylene terephthalate (PTT), polybutylene terephthalate (PBT), polycyclohexylenedimethylene terephthalate polyesters (PCT), polyethylene naphthalenedicarboxylate (PEN), and polylactic acid based polymers or mixtures thereof. (emphasis added.)

The '950 Patent further discusses polyester formulations that are *chemically modified* to provide the desired properties. For example, the '950 Patent discusses using a dicarboxylic acid component, an aromatic dicarboxylic acid, an aliphatic dicarboxylic acid, a cycloaliphatic dicarboxylic acid or mixtures thereof, with a glycol component. In other words, the '950 Patent only discusses *mixed polymers* that are *chemically modified* to achieve the desired properties. To further emphasize this point, the "Background of the Invention" in the '950 Patent goes to great lengths to disparage non-modified, homogeneous polymers. Specifically, col. 1, lines 40-44 state, "[u]nmodified, poly(ethyleneterephthalate)

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(PET) is very high melting ( $T_m=255^\circ$  C.) and is therefore unsuitable for use in bonding nonwoven fiber and film laminates for use in the automotive industry” (emphasis added).

In stark contrast, U.S. Patent No. 5,660,908 to Kelman et al. (the “908 Patent”) only relates to a “recyclable” automotive headliner consisting of 100% polyethylene terephthalate (PET) material. Further emphasizing this point, Col. 1, ll. 31-35 state that, “[a]n object of the present invention is to provide a high strength automotive headliner that can be scrapped and recycled without separating the constituent parts thereof and to do so by an automotive headliner that consists 100% of PET material.”

Accordingly, the ‘950 Patent specifically discusses that “unmodified” PET is “unsuitable,” while the ‘908 Patent *requires* unmodified, 100% PET material. Since these references “teach away” from their combination, it is improper to combine them. Therefore, the rejection to claims 1, 3, 5, 9-13, 15, 38-40, and 42-46 must be withdrawn.

Besides teaching away from their combination, modifying the ‘908 Patent to utilize the material of the ‘950 Patent would render the invention of the ‘908 Patent unsatisfactory for its intended purpose, which is clearly improper. See MPEP § 2143.01, “[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733

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F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).” Specifically, as discussed above, the ‘908 Patent *requires* a headliner of 100% PET material so that it can be scrapped and recycled without separating the constituent parts thereof. If one modifies the ‘908 Patent to include *mixed polymers* that are *chemically modified* as explicitly taught in the ‘950 Patent, the invention of the ‘908 Patent becomes unsatisfactory for its intended purpose; namely, it *cannot* be made of 100% PET material and scrapped/recycled without separating the constituent parts thereof. Instead, by their very nature, mixed polymers prohibit their scrapping/recycling without separating the constituent parts. This proposed modification rendering the ‘908 Patent unsatisfactory for its intended purpose further evidences that the combination of references is improper and claims 1, 3, 5, 9-13, 15, 38-40, and 42-46 should be allowed.

**U.S. PATENT 5,892,187 TO PATRICK IN COMBINATION WITH THE ‘950 AND ‘908  
PATENTS FAILS TO RENDER CLAIMS 4 AND 8 OBVIOUS**

The Examiner cites U.S. Patent No. 5,892,187 to Patrick (the “‘187 Patent”) as allegedly teaching that it is known in the art to vary the distance between ribs and the width of ribs based on the desired sound or noise to be attenuated. Nowhere does the ‘187 Patent provide a motivation for combining the ‘950 and ‘908 Patents. Since the combination of the ‘950 and ‘908 Patents is

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improper (as discussed above) and the '187 Patent fails to remedy this, claims 4 and 8 should be allowed.

**U.S. PATENT 5,399,422 TO DIKEMA IN COMBINATION WITH THE '950 AND '908 PATENTS FAILS TO RENDER CLAIMS 1, 3, 5, 9-13, 15, 38-40, AND 42-46 OBVIOUS**

The Examiner cites U.S. Patent No. 5,399,422 to Dijkema (the "'422 Patent") for the sole proposition that it teaches "glass staple fibers." However, as discussed above, the combination of the '950 and '908 Patents is improper. Since the '422 Patent fails to provide any teaching that addresses this shortcoming, claims 1, 3, 5, 9-13, 15, 38-40, and 42-46 should be allowed.

**THE ADDITION OF THE '187 PATENT IN COMBINATION WITH THE '950, '908, AND '422 PATENTS FAILS TO RENDER CLAIMS 4 AND 8 OBVIOUS**

As noted above, there is no motivation or proper basis to combine the '950 and '908 Patents. This is true whether these references are considered in further combination with the '422 and '187 Patents. Accordingly, the rejections of claims 4 and 8 are improper and should be withdrawn.

**CONCLUSION**

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Upon careful review and reconsideration it is believed the Examiner will agree that the combination of the '950 and '908 Patents is improper. Since all of the rejections are based on this improper combination, they should be withdrawn and claims 1, 3-5, 8-13, 15, 38-40 and 42-46 should be allowed.

The undersigned authorizes the deduction of any necessary fees required in connection with this Amendment to be debited from Deposit Account No. 50-0568.

Respectfully submitted,

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